

## Title (en)

Methods and substances for recruiting therapeutic agents to solid issues comprising two single chain VH-VL bifunctional binding molecules.

## Title (de)

Methode und Stoffe zur Lenkung therapeutischer Mittel an festes Gewebe, die zwei einkettige bifunktionelle VH-VL bindende Moleküle enthalten.

## Title (fr)

Méthodes et produits pour diriger des agents thérapeutiques vers des tissus solides comprenant deux molécules de liaison bifonctionnelles VH-VL monocaténaires.

## Publication

**EP 0506124 A1 19920930 (EN)**

## Application

**EP 92105380 A 19920327**

## Priority

US 67565491 A 19910327

## Abstract (en)

Disclosed is a composition for enhancing delivery of a therapeutic agent to a solid tissue site, comprising: two single chain VH-VL bifunctional binding molecules which are joined together, having one specificity for a solid tissue antigen and the other for the therapeutic agent; a remover substance which binds circulating binding molecule; a therapeutic agent. The therapeutic agent is administered separately from the binding molecules and following the administration of a remover substance which aids in clearing free binding molecules in the circulation. In the preferred mode of the invention, the binding molecules have one specificity for antigens at the target site and one for the therapeutic agent. The binding molecules are administered and allowed time to approach a maximum concentration in the extravascular space. A remover substance, preferably a liposome conjugated with antibodies which are reactive with an antigenic epitope on the binding molecules, is then administered to remove excess binding molecules from the circulation and the extravascular space. A therapeutic agent, preferably a cytotoxic drug such as ricin A chain modified so as to enable it to enter the target cells once delivered to the target site, is then administered. <IMAGE>

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**A61K 47/48; C07K 15/00**

## IPC 8 full level

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- [AD] US 4946778 A 19900807 - LADNER ROBERT C [US], et al
- [AD] WO 8809344 A1 19881201 - CREATIVE BIOMOLECULES INC [US]
- [AP] TRENDS IN BIOTECHNOLOGY. vol. 9, no. 4, April 1991, CAMBRIDGE GB pages 132 - 137; BIRD R.E. ET AL: 'Single chain antibody variable regions.'
- [A] NATURE. vol. 339, no. 6223, 1 June 1989, LONDON GB pages 394 - 397; CHAUDHARY V.K. ET AL: 'A recombinant immunotoxin consisting of two antibody variable domains fused to Pseudomonas exotoxin.'
- [A] MEDLINE ABSTRACT Number: 86295741 GIMENEZ-GALLEGO G.et al:"The complete amino acid sequence of human brain-derived acidic fibro blast growth factor."

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